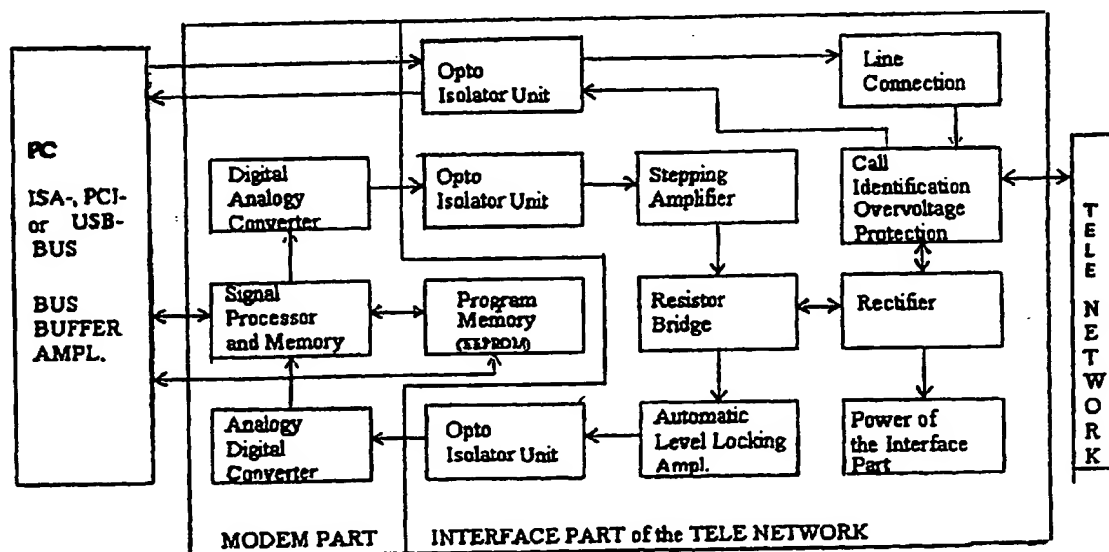




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : H04L 1/12, 27/00		A3	(11) International Publication Number: WO 00/33501
			(43) International Publication Date: 8 June 2000 (08.06.00)
(21) International Application Number: PCT/FI99/00952 (22) International Filing Date: 17 November 1999 (17.11.99) (30) Priority Data: 982479 17 November 1998 (17.11.98) FI (71)(72) Applicants and Inventors: ¹⁰⁰ LALLO, Pauli ^{FI} [FI/FI] ; Varuskunta 45 as 8, FIN-11310 Riihimäki (FI). PEL- TONIEMI, Pekka [FI/FI]; Suvelantie 8 A 36, FIN-02760 Espoo (FI). SEKKI, Mauri [FI/FI]; PL 80, FIN-02771 Espoo (FI). TERVAPURO, Ilpo [FI/FI]; Holvikuja 1 B 54, FIN-02770 Espoo (FI). (74) Agent: NIEMINEN, Taisto; Patenttitoimisto T Nieminen Oy, Kehräsaari B, FIN-33200 Tampere (FI).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>In English translation (filed in Finnish).</i> (88) Date of publication of the international search report: 10 August 2000 (10.08.00)	

(54) Title: ADAPTIVE MODEM AND METHOD FOR ADAPTIVE ELECTION OF MODULATION MODE



(57) Abstract

Adaptive modem including modem part which comprises a transmitter and a receiver using digital signal processing and a control unit needed for the control of the modem functions, interface for the telecommunication network, where we have interfaces for the telecommunication network, and the signal amplification and waveform shaping units needed in transmission and receiving process, and the computer bus interface. Digital signal processing includes the calculation algorithms of an application of Fourier Transform, where the transmitter and receiver functions are made with the algorithms mentioned optimally adaptive to the transmission speed, bit error and/or bandwidth of the available communication channel.